

Update on Release of Draft Fine Screening Report

The County would like to express appreciation for the support and feedback received from Dr. George Tchobanoglous, chair of the National Water Resource Institute (NWRI) panel that reviewed the Los Osos Wastewater Management Plan Update done by Ripley Pacific in November 2006, and his associate Mr. Harold Leverenz. Their assessment of the Rough Screening Report included a few specific comments on three aspects of the collection system. After receiving the written comments, Paavo Ogren and Lydia Holmes (Carollo) met with Dr. Tchobanoglous to discuss at the meeting. Dr. Tchobanoglous expressed support for Carollo's Rough Screening Report and the options that were moving forward into the fine screening process. Regarding the written comments, those on the STEP system were consistent with the County team's assumptions. Dr. Tchobanoglous's comments on the conventional gravity collection system were based on concrete/clay pipelines, whereas the County team's assumptions were based on PVC pipe with bell and spigot compression fitted joints. Nevertheless, since these calculations affect each of the project components, the Project team determined that re-evaluating I/I (inflow and infiltration) would be important. Subsequent analysis was prepared, which covered some recalculations of cost estimates and delayed the recent release of the Draft Fine Screening Report. The following are the comments from Dr. Tchobanoglous and Harold Leverenz received prior to revisions incorporated into the Draft Fine Screening Report:

Thanks for keeping me in the loop. We (Harold Leverenz and I) have followed with some interest the developments in Los Osos. The following comments are limited to the design flow rates specified in the draft rough screening report.

- 1. Replacement of septic tanks. It is inappropriate to assume that some of the existing septic tanks would be retained if a STEP system were to be used. The only way to assure a water tight system is to replace all existing septic tanks with new water-tight tanks installed under rigorous field inspection.*
- 2. Total flow estimates for conventional collection system. On Page 1-14 of the rough screening report (3 23 2007 draft) the total flow estimates are not consistent with field observations of existing systems. While gravity sewers may be more watertight initially when installed, appropriate allowances should be made for anticipated infiltration rates. Assuming excellent construction and installation techniques, it is anticipated that the minimum infiltration rate in a conventional gravity collection system would be somewhere between 0.5 to 1 Mgal/d during wet weather. Corresponding peaking factors would be on the order of 1.25 to 1.5 (assuming excellent construction). Therefore, the average wet weather flow is estimated to range from 1.7 to 2.2 Mgal/d; the corresponding peak wet weather flow would range from 1.9 to 2.6 Mgal/d, based on a wet weather peaking factor of 1.4 (a conservative value).*
- 3. Total flow estimates for STEP/STEG collection system. If an allowance of 5 gal/capita-d is used for inflow to a STEP/STEG system, the corresponding average design flow would be about 1.3 Mgal/d.*

We believe that the above estimates are more representative of the actual flow that would be expected.

Although we have no opinion concerning what the citizens of Los Osos will choose to do, we believe it is important to make valid engineering comparisons between alternative technologies, based on sound engineering data.

Thank you for your time.

With best regards,

George and Harold

Again, the County Project Team would like to reiterate the support and comments from Dr. Tchobanoglous. We also asked him if he would be interested and available to perform "peer review" during the project selection efforts in 2008, at which time these and other design level issues will be addressed in greater detail. Dr. Tchobanoglous indicated that he could in fact participate in these project efforts and we believe his participation will greatly enhance the decision making process.

Sincerely,
Paavo Ogren, Project Director